

## OPERACIONES CON FRACCIONES

## Ficha 2 Nivel 2

Las operaciones que tienes aquí están hechas, paso a paso , hasta el final simplificado. Un viento ha hecho desaparecer casi todos los números.

Encuétralos.

$$1) \frac{2}{5} - 3 \left( \frac{6}{7} - \frac{1}{4} \cdot 2 \right) = \dots - 3 \left( \dots \right) = \dots - 3 \left( \frac{24}{28} - \frac{\dots}{28} \right) = \dots - 3 \cdot \dots = \dots = \frac{\dots}{140} = \dots$$

$$2) \frac{\frac{7}{2} - 2 \cdot \frac{3}{5}}{(-2) \cdot \frac{3}{5} - \frac{(7)^0}{2}} = \dots = \dots = \dots = \dots$$

$$3) \frac{4}{5} \cdot \frac{6}{3} - \frac{2}{3} \left( \frac{4}{3} \cdot \frac{6}{5} \right) - 1 = \dots - \frac{2}{3} (\dots - 1) = \dots - (\dots) = \dots = \dots = \dots = \dots$$

$$4) \frac{2^2}{3^2} - \frac{2^3}{3^1} \left( 6 - \frac{2}{3^2} \right) = \dots - \left( 6 - \dots \right) = \dots - \left( \dots \right) = \dots = \dots = \dots$$

$$5) \frac{1}{2} - \left( \frac{3}{2} \right)^2 \left( 1 - \frac{3}{5} \right) = \dots - \frac{1}{4} \left( \frac{\dots}{5} - \dots \right) = \dots - \left( \dots \right) = \dots = \dots = \dots = \dots$$

$$6) 4^{-1} \cdot \frac{3}{5} + 3^{-1} \cdot \frac{4}{5} + 5^{-1} \cdot \frac{4}{3} = \frac{1}{\dots} + \frac{1}{\dots} \frac{4}{5} + \dots = \dots + \dots + \dots = \dots + \dots + \dots = \dots$$

## SOLUCIONES

$$1) \frac{2}{5} - 3 \cdot \left( \frac{6}{7} - \frac{1}{4} \cdot 2 \right) = \frac{2}{5} - 3 \cdot \left( \frac{6}{7} - \frac{2}{4} \right) = \frac{2}{5} - 3 \cdot \left( \frac{24}{28} - \frac{14}{28} \right) = \frac{2}{5} - 3 \cdot \frac{10}{28} = \frac{2}{5} - \frac{30}{28} = \frac{56}{140} - \frac{150}{140} = \frac{-94}{140} = \frac{-47}{70}$$

$$2) \frac{\frac{7}{2} - 2 \cdot \frac{3}{5}}{(-2) \cdot \frac{3}{5} - \frac{(7)^0}{2}} = \frac{\frac{7}{2} - \frac{6}{5}}{\frac{-6}{5} - \frac{1}{2}} = \frac{\frac{35}{10} - \frac{12}{10}}{\frac{-12}{10} - \frac{5}{10}} = \frac{\frac{23}{10}}{\frac{-17}{10}} = \frac{23 \cdot 10}{10 \cdot (-17)} = \frac{-23}{17}$$

$$3) \frac{4}{5} \cdot \frac{6}{3} - \frac{2}{3} \cdot \left( \frac{4}{3} \cdot \frac{6}{5} - 1 \right) = \frac{24}{15} - \frac{2}{3} \cdot \left( \frac{24}{15} - 1 \right) = \frac{24}{15} - \frac{2}{3} \cdot \left( \frac{24}{15} - \frac{15}{15} \right) = \frac{24}{15} - \frac{2}{3} \cdot \frac{9}{15} = \frac{24}{15} - \frac{18}{45} = \frac{72}{45} - \frac{18}{45} = \frac{54}{45} = \frac{6}{5}$$

$$4) \frac{2^2}{3^2} - \frac{2^3}{3^1} \left( 6 - \frac{2}{3^2} \right) = \frac{4}{9} - \frac{8}{3} \left( 6 - \frac{2}{9} \right) = \frac{4}{9} - \frac{8}{3} \left( \frac{54}{9} - \frac{2}{9} \right) = \frac{4}{9} - \frac{8}{3} \cdot \frac{52}{9} = \frac{4}{9} - \frac{416}{27} = \frac{4}{9} - \frac{426}{27} = \frac{404}{27}$$

$$5) \frac{1}{2} - \left( \frac{3}{2} \right)^2 \cdot \left( 1 - \frac{3}{5} \right) = \frac{1}{2} - \frac{9}{4} \left( \frac{5}{5} - \frac{3}{5} \right) = \frac{1}{2} - \frac{9}{4} \cdot \left( \frac{2}{5} \right) = \frac{1}{2} - \frac{18}{20} = \frac{10}{20} - \frac{18}{20} = \frac{-8}{20} = \frac{-2}{5}$$

$$6) 4^{-1} \cdot \frac{3}{5} + 3^{-1} \cdot \frac{4}{5} + 5^{-1} \cdot \frac{4}{3} = \frac{1}{4} \cdot \frac{3}{5} + \frac{1}{3} \cdot \frac{4}{5} + \frac{1}{5} \cdot \frac{4}{3} = \frac{3}{20} + \frac{4}{15} + \frac{4}{15} = \frac{9}{60} + \frac{16}{60} + \frac{16}{60} = \frac{41}{60}$$